

# Investigating the Relation between Standardization with Expansion of Exports in the Food Products of Hamedan Province

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## Abstract

The purpose of this study is to investigate the relation between standardization and expanding the export of food products by using the research model in which the aspects and characteristics of standardization of expanding the export of food products with regard to six aspects were considered both in standardization including quality, expert force, standardization culture, products safety and health, facilitation of legal permits, reduction of waste and in the field of expanding the export of food products such as technology, government, competitive advantage, exporting motivators, company size, exporting commitment. Then, theorizing is done and using the descriptive and scaling research method and the data collection method, most important of which was through questionnaires, this research discusses the impact of the independent variance with the considered aspects on the dependent variance. The statistical population of this research includes all the quality control executives of the food production units of Hamedan province, CEOs of exporting production units, authorities of the Standard Office of Hamedan province, among whom 100 people were selected for the main study. To analyze the data, descriptive statistics including plentitude distribution, plentitude percentage, average, diagram and inferential statistics were used and the Kolmogorov-Smirnov test is done to analyze the normality variances and the Spearman coefficient is used to prove the hypotheses of the research in order to evaluate the relation between standardization and expanding the export of food products. The results from this research indicate that all the hypotheses are accepted and among the aspects of standardization, the quality aspect with the highest integrity coefficient in the amount of 0.644, has a relation with expanding the export of food products.

**Keywords:** Standardization, expanding exports, food products.

## Introduction

In today's world, great changes are witnessed in different fields, especially in the conditions of the global economy and markets. These changes affect the global commerce activities constantly and are followed by opportunities and threats in the fields of economy and commerce for societies. In this tumultuous world, economic companies and businesses that have a special attention to the quick global changes, quick market changes, competitiveness and the status of the competitors, distribution systems, advertisement, new technologies, expanding exports and also standardization succeed.

If manufacturing units observed the national standards, together with global standards, they can find great fame and credit in their goal markets and present their products with a higher quality in comparison with their competitors and with regard to their customers' tastes within the country and abroad. Added to that, they can be committed to their social duties and consider the social welfare and the major interests of their society too.

Today, with attention to the subject of sanctions, the best opportunity for production units is provided to expand their exports, especially in exporting food products. It is hoped that the suggestions and strategies presented by this paper can help take an effective step toward improving

and expanding the export of food products in Hamedan province through the use of standardization of food products.

### **Statement of Problem**

Standards in today's world are among the most important criteria for development in economic exchanges and powerful countries of the world, use them as a strong and advanced tool against other countries. Now that the subject of exporting the country's products is shown in the national economy as a principle, the necessity to reach a competitive quality in products as a success factor in the subject of exports is verified (Zatourian and Mortazavi, 2012). Some regard standard as only the sign for the products' genuineness, but this sign is not only related to the product, but it includes many other services that cause the expansion of the exports too. Standards are the red lines to determine the factors and indicate an order based on rules, basics, principles and regulations (Mohammadzade, 2013); therefore, the standard sign is a shared language between all the factors in the field of different productive and service activities through which the establishment of a unified set of international standards to reach the capability to manufacture and export is facilitated and there is no more need to receive different licenses in order to export to other countries (food safety article). Standard is not a stable matter.

In today's quick and tumultuous world, standards change and are complemented with the advancement of sciences and technologies (Fat'hi and Alinejad, 2006). Gaining standards and presenting models and optimal and better patterns are among the goals that executives and authorities try to consider in developing the state of the affairs. Standardization of products can play a direct role in the realization of the expansion of exports. Increasing standard coverage for all internal products and propagating this culture among all the sectors of the society can be used as one of the most important ways to eradicate the current undesirable conditions that rule over the internal economy, face economic sanctions, increase quality level of national made products and competitiveness (Teymouri, 2014). In the current state of trading the world, only the product that in its standardization and production the accepted qualities of the target market are observed can succeed in growing and expanding exports. It is obvious that improving the quality and access to high standards in production provide the grounds for the competitive capacity for the product (Fat'hi and Saqafi, 2006).

Food and agriculture industry are considered as two of the pioneers in non-oil exports (Haras). They provide 80 percent of the nutritional needs, a quarter of the national net value, one third of employment, etc. Therefore, with attention to the direct and indirect impacts that the agriculture department has, it plays an important role in the flourishing of the economy of countries, especially developing countries (Shamsabadi, Ahmadabadi et al., 2011). This industry in Hamedan province can have several points and importance and advantages, with regard to the climate conditions and the desirable diversity and quality in agriculture and the abundance of water supplies. In the aspect of construction industries, this industry is the second most active sector of the economy in the province with 70 economic businesses (production units) in the food and agriculture industry and the 218 products that have the obligatory license for exporting can play an important role in expanding the exports. Fortunately, with the establishment of new national standards, matching with the global food products' standards (such as CODEX, ISO 22000, HACCP, ISO 9001, ISO 15161, ISO 14000) and the expansion of the products, the application of plans such as Taja 2 and Taha 3 and the efforts of experts and professionals, the number of products that have obligatory standard increases (Standard Journal, 2014).

Taha plan is a plan for supervision over the market which is done by approved experts of the National Standard Organization or standard offices of every province that investigate the provider

centers and in case they witness a non-standard product or one that lacks the standard sign, the products are sealed and reported to the legal department of the office so that based on the rules and regulations of standards, they are reported to the court or the punishment office so that the final verdict is issued for the offenders which includes fines in cash, imprisonment and lashes.

In the Taja plan which was first conducted in 2013, 299 products that were not included in the obligatory standard in 11 industry sections, were listed in standard products so that their production without the standard sign can be legally punished by the Standard Office (Standard Journal, 2013).

The goal of this research is to investigate and present proper methods to increase the relation between standardization and increasing the quality level of food products and analyzing the relation of standardization in expanding the export of food products in all exporting production units of food products, especially Sahar Hamedan (sauces, canned food, pickled vegetables and sours), Pegahe Hamedan Milk (dairies), Nioushe (sauces, canned food, pickled vegetables and sours), Khoshnoush (soda) and Masoud Javadi Yegane (cakes) that are currently exporters of food products in Hamedan to match with the target markets and clients and expanding the export of food products of Hamedan province. Therefore, it should be mentioned that this research is provided for all the production units of the province, because as efforts are put into expanding the standardization and its culture in order to expand exports of food products in Hamedan province, the economy of the country will become stronger and the province will be considered as a strong exporting center in the country. So, in this research it is tried to answer the question that whether or not there is a relation between standardization and the expansion of exports of food products in the province in a desirable way and if there is a meaningful relation between standardization and expansion of the export of food products in Hamedan province.

### **Significance of the study**

To determine the real importance of the subject of this research, this passage is helpful:

Food has always been in the attention as an important factor in the growth and development of societies. A look at the history and historical documents show that attention to this matter from the ancient times has been considered as an important factor in growth, development and economic transactions (Hassanpour). The most important tool to empower the economic basis of every country is to create opportunities for increasing exports. The first step is to identify opportunities and facilities for replacing the import of food products with attention to the improvement of the conditions of products and the goal must be to reach the international standard levels of the food industry (Sherkat).

Therefore, to guarantee the success of this plan, the role of Iran's National Standard Organization becomes very vital and important. Stress on international standards and trying to improve the quality of national products, especially the exported food products that cause the optimal use of work force, factories and satisfaction of Iranian and foreign consumers and eventually cause the flourishing of the national economy (Shafafi, Zanoluzian and Mortazavi, 2009). The expansion of exports provides new facilities for the country's economic development through improving the levels of professions and transportation of knowledge and technology, enjoying research centers and universities and approving investigating companies, etc. and most importantly, eradicates the issue of the limits in internal markets. In the conditions of the challenges and sanctions, the best acceleration point is based on activating the capacity for internal production, especially increasing the quality of our products by increasingly using standards, adjusting the consumption patterns, safety and reducing wastes (Pirouzbakht, 2014). The status of Iran in the food department has caused it not to have a good position in the great food market and its international

trade. This is when the highest relative advantage of the country for entering the field of international trading is in the food industry and the best markets for our country's food products are close to our borders.

The barriers on the road to exports have led this markets to not expect the constant and desirable offer of products from Iranian exporters. This is mainly because of the lack of a professional approach toward this section, especially in the international trading. Therefore, it is necessary to take measures in order to eradicate the barriers for exporting the country's food products with a scientific and professional approach toward the subject of exporting and international marketing and toward the policies of the government (Shamsabadi, 2011). Therefore, it can be stated that the necessity and importance for reducing the risk and standing against sanctions and barriers of non-oil exports is for us to insure it with self-reliance, meaning that we must keep the economy on its feet and develop the expansion of the province's exports day by day with focus on expanding the export of products that are matched with international standards and establishing new national standards, increasing the quality level of our products, using models like Ishikawa, Kaisen, role of standard in producing barriers in expanding the export of food products, competitiveness and adding 299 new products that are included in the obligatory standard that was approved in the Taja plan in the year 2013. There are 90 economic businesses in Hamedan Province that are active and 70 of them are included in the plan for obligatory standards. It should also be mentioned that 10 new products are added to those that were included for the obligatory standard in the food industry through the Taja plan, and this in itself, stresses upon the importance and necessity of this research and can be a step toward improving and expanding the exports of the province in comparison with the neighboring provinces. It also makes our duties ever more sensitive and important.

### **Research objective**

The practical objective of this research is to help expand the export of food products in Hamedan province through standardizing the products and increasing the share of the market.

### **Research hypotheses**

#### *Main hypothesis*

H1: There is a positive and meaningful relation between the standardization of food products of Hamedan province and expanding the exports.

#### *Subsidiary hypotheses*

H2: There is a meaningful relation between the quality of standardization and the expansion of exports of food products in Hamedan province.

H3: There is a meaningful relation between expert workforce for standardizing and the expansion of the export of food products in Hamedan province.

H4: There is a meaningful relation between the standardization culture and the expansion of exports of food products in Hamedan province.

H5: There is a meaningful relation between safety and health of food products and the expansion of exports of food products in Hamedan province.

H6: There is a meaningful relation between the facilitation of legal permissions in standardization and the expansion of the export of food products in Hamedan province.

### **Research methodology**

Most researches are done for two different goals. One is to solve problems that are currently present in the working environment and the second is to add to the sum of human knowledge to solve the problems in the whole organization. This research is of the practical nature. Also, the nature of research studies can be toward discovery or descriptive or at the same time, it can be conducted to test the hypotheses. When we go for discovering, we do not have a complete

awareness about the way the problems that arose before are solved and how they are similar to the current state.

#### **Data collection method and tools**

To collect the research terminology, secondhand sources including books, magazines, articles and physical and digital sources were utilized and using them, sufficient information to understand the subject of the research and its terminology was gathered. The data collection method was through studying the library books and documents.

To collect the statistical data, the field method was used and the tool was questionnaire. With regard to the fact that the repliers are required to give the answer to the evaluation of an idea, behavior, belief, etc. based on objective or subjective criteria in a response domain between agreeing or disagreeing, the Likert scale was utilized.

#### **Data analysis and Results**

The results of the analysis are as follows:

H1: There is a meaningful relation between the standardization of food products of Hamedan province with the expansion of exports of food products in Hamedan province.

According to the coefficient and variances of standardization of food products, results show that the variances of quality, expert work force, standardization culture, safety and health, reduction of wastes and facilitation of legal permissions have the biggest impact on the expansion of exports of food products in Hamedan province, respectively. Therefore, the CEOs of production units must pay attention to these priorities in their organization's planning and perspectives to expand exports and competitiveness in global markets and gaining the target market. Therefore, it is suggested that more attention should be given to increasing the knowledge and skill level of the employees of this production units.

H2: There is a meaningful relation between the quality of standardization and the expansion of the export of food products in Hamedan province.

With regard to the results of the research, the quality variance has the strongest relation with the expansion of exports of food products, therefore, it is necessary for CEOs of businesses to give special attention to the quality variance in establishing strategies and plans. It is suggested that the following measures be taken in order to increase quality level:

- Today, because quality has the first say in the world, CEOs of production units must increase the quality level of their products with regard to the clients' needs in order to gain the target markets and increase competitiveness.
- It is necessary for CEOs of production units to give more attention to the constant training of their employees.
- They must give the needed standard devises and equipment for the quality control of the products during the production and at the completion to the executives of the quality control department.
- They must utilize standard raw material in the production process to increase the quality level of the products.
- CEOs must give the needed freedoms in the process of the production to the executives of quality control department.

H3: There is a meaningful relation between the expert work forces for standardization and the expansion of the export of food products in Hamedan province.



The use of expert and professional work force in the production unit, especially in the production department of food industries is of a great importance because food products are in direct contact with people's lives. Therefore, it is suggested that:

- In producing food products, with regard to the sensitivity of these products, expert work forces who are familiar with the rules and regulations of standardization and their duties in the production must be employed.
- Special attention should be given to training expert and professional workers constantly and in pace with the quick changes of science and technology.
- Expert work forces should be used in the research and development departments of the production unit to investigate the market, identify the needs of the customers, competition in global markets, etc.

H4: There is a meaningful relation between the standardization culture and the expansion of exports of food products of Hamedan province.

Today, one of the most practical methods to apply the new and innovative ideas is to turn that idea into a kind of culture. Therefore, it is suggested that:

- To institutionalize and propagate the standard culture, especially in the field of the standardization of food products, a series of propagation policies and plans should be conducted in the province's schools and among the children because they are those who create the future of this country. For instance, having kids as standard agents.
- The culture of consuming our country's products to support the province's manufacturers should be taught and propagated.
- Exhibitions entitled standard and export of food products should be hold in the province.
- The culture of standardization and the importance of exports should be propagated through schools, universities, national television, media, etc.

H5: There is a meaningful relation between safety and health of the food products and the expansion of the export of food products in Hamedan province.

When the subject of food products arises, the first image in the mind is that of the products that are safe and healthy and cause no harm on the consumers' health. Observing standards guarantees this matter. Therefore, it is suggested that:

- CEOs and especially executives of quality control in production units of food industries should be obliged to observe the standard permitted limit which eventually leads to the safety and health of food products and expansion of exports.
- CEOs of exporting units of food products should give special attention to the standards of the target country in the fields of safety and health of the food product to be compatible for export.
- Green packing technologies should be used for exporting food products.
- Attention should be given to the way food products are carried and kept.

H6: There is a meaningful relation between the facilitation of legal permissions in standardization and the expansion of the export of food products of Hamedan province.

With regard to article 75 of the policies of the fifth development plan, it is suggested that:

- Bureaucracy should be reduced for giving legal permissions for exporting.
- The legal policies in related organizations should be adjusted and devised in order to accelerate and facilitate the issuing of standard license and custom statements to support the export of food products of the province.

H7: There is a meaningful relation between the reduction of waste through standardization and the expansion of the export of food products.

The reduction of wastes and redoing is a new subject that the CEOs of production units, especially in the food industry must pay great attention to them. Therefore, the following items are suggested:

- Quality control executives who are aware of the standardization should be utilized in the production process to reduce redoing.
- Good and standard raw material should be utilized to decrease wastes and costs.
- Improved methods should be discovered so that the previous methods that were wasteful and costly are not used anymore.
- CEOs must be hard on wastes and put this among their strategies in any production unit to reduce surplus costs and think of expanding the export of their products.

### **Conclusion**

This research, entitled “Investigating the Relation Between Standardization with Expansion of Exports of the Food Products of Hamedan Province”, by investigating the relation between standardization and expanding the export of food products, using the research model that the aspects and characteristics of standardization of expanding the export of food products with regard to six aspects, is considered both in standardization (quality, expert force, standardization culture, products safety and health, facilitation of legal permits, reduction of waste) and in the field of expanding the export of food products (technology, government, competitive advantage, exporting motivators, company size, exporting commitment).

Then theorizing is done and using the descriptive and scaling research method and the data collection method, most important of which was through questionnaires, this research discusses the impact of the independent variance with the considered aspects on the dependent variance. After the data were collected from the sample of the statistical group, first they were classified using the descriptive statistics in the form of plentitude tables and then, using the statistical inferential techniques, they were analyzed to test the hypotheses. The results of this research indicates that all the hypotheses were confirmed and among the aspects of standardization, the aspect of quality with the highest correlation coefficient in the amount of 0.644, has a meaningful relation with the expansion of the export of food products.

### **Recommendations of the study**

#### ***Suggestions based research results***

- Presenting export awards and standard trophies to the province’s best exporters in the food industry
- Establishing an organization for the system of quality control engineering in order to support the quality control executives as the turning points of production and the supervisors who are always present in production units
- Creating a shared educational system for all CEOs, exporters, students of the commerce field and students from different fields, especially students of the field of food industry, expert work force, employees of production units of food industries of the province by the Standard Organization and the Organization of Industry, Mining and Commerce of the province and the customs
- Not paying the quality control executives directly from the CEOs in production units that export food products from the province so that they are not ruled by them
- Reducing the costs of periodical experiments to decrease the final cost of the product and encouraging the CEOs of production units to acquire the standard license and all the licenses and registering the commercial sign of the food products of the province

### ***Suggestion for further research***

With regard to the fact that this study has been done under the title “Investigating the Relation Between Standardization with Expansion of Exports of the Food Products of Hamedan Province”, it is suggested that:

- Researchers can analyze this relation of standardization with the expansion of exports of products in other industries of the province.
- They can consider the impact of all the effective factors in the two independent variances of standardization and export expansion.
- With regard to the fact that this research was conducted in the latter half of the year 2014, this investigation can be done in future time periods.

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